

3                   detecting circumferential obstacles as bodies;

4                   obtaining data from a rotating pulsed infrared laser beam scanner

5   apparatus including a time when the beam reaches a first edge of the obstacle

6   and a time when the beam reaches a second edge of the obstacle;

7                   determining a relative distance from the scanner apparatus to the

8   obstacle; [and]

9                   determining a time to collision with the obstacle; and [.]

10                  determining a braking force to avoid a collision with the obstacle.

Please add the following new claims:

1                  12. (NEW) The method of avoiding a vehicle collision of claim 11,

2                  further comprising determining a critical point at which an absolute value of da/dt

3                  approaches zero.

1                  13. (NEW) The method of avoiding a vehicle collision of claim 12,

2                  wherein determining the relative distance and determining the time of collision

3                  are initiated at the critical point.

1                  14. (NEW) The method of avoiding a vehicle collision of claim 11,

2                  further comprising determining a relative angular velocity of the obstacle.

1       15. (NEW) The method of avoiding a vehicle collision of claim 11,  
2       wherein determining the time of collision comprises computing a second order  
3       factor.

1       16. (NEW) The method of avoiding a vehicle collision of claim 11,  
2       further comprising determining the bumpiness of a road surface.

1       17. (NEW) The method of avoiding a vehicle collision of claim 16,  
2       wherein determining the braking force to avoid a collision with the obstacle  
3       comprises determining a first braking force in a case where the time of collision is  
4       less than 1.5 seconds and a second braking force in a case where the road is  
5       bumpy.

1       18 (NEW) The method of avoiding a vehicle collision of claim 11,  
2       wherein determining the time of collision further comprises determining vertical  
3       and horizontal components.

1       19 (NEW) The method of avoiding a vehicle collision of claim 11,  
2       further comprising determining a rate of approach of the vehicle and the obstacle.

1       20. (NEW) The method of avoiding a vehicle collision of claim 11,  
2       further comprising providing a plurality of channels having a bandwidth of about  
3       100 kHz.

1        21. (NEW) The method of avoiding a vehicle collision of claim 11,  
2        wherein the obtaining and determining steps are performed in a point to point  
3        vector processing manner.

1        22. (NEW) The method of avoiding a vehicle collision of claim 11,  
2        further comprising using an analog circuit to process the time when the beam  
3        reaches the first edge of the obstacle and the time when the beam reaches the  
4        second edge of the obstacle, the relative distance from the scanner apparatus to  
5        the obstacle, a relative angular velocity of the obstacle, an acceleration of the  
6        obstacle and a derivative of the acceleration.

#### REMARKS

The claims have been amended to more clearly claim the invention. No new matter has been added.

#### CONCLUSION

Applicant respectfully requests entry of the above amendments and submits that no new matter has been added thereby.

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